

INDUSTRIAL CONTROL SYSTEM

B ABSTRACT OF THE INVENTION

5 B A control system (10) controls transfer of
electronic signals to and from industrial and scientific
equipment. The control system includes a real-time
database (60) for storing data elements which may be
accessed by a plurality of tasks (62, 64, 66, 68, 70, and
72). Each data element in the real-time database (60) has
an associated changed status flag for each task which
indicates whether the value of the element has changed
since the last access by the task. Individual tasks must
communicate through the real-time database, since no
inter-task communication is supported. The tasks support
bidirectional communication with industrial and scientific
equipment, alarm supervision, data logging, real-time
clock functions, mathematical and logical functions, and
interactive operator communications.

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